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Mr. Christopher Calfee, Senior Counsel
Governor's Office of Planning and Research
1400 Tenth Street
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RE: Comments on OPR's "Preliminary Evaluation of Alternative Methods of Transportation Analysis"

Dear Mr. Calfee:

Thank you for the opportunity to provide comments on "Preliminary Evaluation of Alternative Methods of Transportation Analysis" produced by the Governor's Office of Planning and Research (OPR). Below are some thoughts I have on OPR's efforts to develop alternative methods of transportation analysis under the California Environmental Quality Act as well as some responses to the open questions presented at the end of the OPR paper. While I work for the City of Burbank, I am submitting these comments individually as a transportation professional with experience evaluating the transportation impacts of development projects. I attended the workshop you sponsored at the Southern California Association of Governments offices in late 2013 and look forward to participating in future workshops and other activities as OPR prepares draft CEQA guidelines for evaluating transportation impacts.

Introduction

OPR has solicited input from transportation professionals and other interested parties on proposed alternative methods of analyzing and measuring transportation effects of projects under CEQA. On December 30, 2013, OPR produced a document entitled "Preliminary Evaluation of Alternative Methods of Transportation Analysis" that discusses various methods for evaluating traffic impacts as alternatives to the current measuring vehicle congestion and delay through Level of Service (LOS) measures. This review is required under Senate Bill 743, which tasks OPR with developing an alternative methodology to LOS for studying traffic impacts under CEQA.

OPR's preliminary evaluation outlines a number of alternative measurements of transportation impacts including Vehicle Miles Traveled (VMT), Automobile Trips Generated, fuel use, Motor Vehicle Hours Traveled, and vehicle travel time (not included in the OPR document but mentioned in early outreach meetings). It discusses how each measure relates to the goals of SB 743 and how each measure could be used as a metric for evaluating transportation impacts.

While not explicitly stated, OPR's preliminary evaluation document suggests that one of the Vehicle Miles Traveled (VMT) measures may be the preferred metric recommended to evaluate transportation impacts of new development. The document notes that VMT measures are relatively easy to calculate,

easy to model using existing tools, can encourage development of alternative travel modes, and presumably have the most direct link to measuring the physical effects of traffic on the environment – air quality impacts, greenhouse gas emissions, and noise. In addition, VMT could still be used to relate project traffic to the operational effects of traffic on the transportation network. This includes traffic congestion and mobility and operational costs (transit operations, roadway maintenance, traffic safety enforcement, etc.).

While a VMT measure may be the most appropriate for replacing LOS as a transportation metric, the simplicity in calculating, measuring, and developing thresholds is overstated in the OPR document. Adopting a VMT-based measure will significantly change how jurisdictions evaluate projects under CEQA, and care is needed in developing a process for incorporating VMT analysis into CEQA.

VMT-based CEQA Thresholds

Adopting a VMT measurement would require jurisdictions to adopt new thresholds for how much VMT projects could generate before triggering impacts, and then require project environmental documents to identify feasible measures to reduce VMT caused by the project. Simply calculating VMT for a project in isolation would be meaningless because this number would have little context in relation to the physical environment. Jurisdictions might develop CEQA VMT thresholds by comparing project VMT to either 1) the jurisdiction's existing or expected level of VMT as identified in its general plan or other planning document, or 2) a "typical" or "model" level of VMT generated by a similar type of project. In both cases, jurisdictions would need to compile new information about the project and its environment prior to analysis. Below is an overview of the data needs and procedures that might be contemplated by jurisdictions implementing one of these two types of VMT thresholds.

Case 1 Data Needs - Project VMT versus Total Jurisdictional VMT (existing and/or future)

- Project trip generation including information about mode split
- Expected trip length (influenced by land use type, geographic location, demographics)
- Total jurisdictional VMT (such as estimated through a travel demand model based on socioeconomic data or land use data and a model of the transportation network

In this scenario, the CEQA threshold would compare project VMT to the total VMT generated by a jurisdiction (either currently or in the future). It would allow an agency to set a "fair share" of generated VMT that a project could consume versus a total amount expected over time, and allow the project to either reduce its VMT as mitigation or offset it through contribution towards physical transportation measures identified in a long range plan. Implementation could model the transportation development impact fee programs in some jurisdictions.

Case 2 Data Needs - Project VMT versus Typical Project of Similar Characteristics

- Project trip generation including information about mode split
- Expected trip length (influenced by land use type, geographic location, demographics)
- Reliable measures of the VMT generated by a typical project similar to the proposed project
- Typical project models (expressed per capita, person-trip, square-footage, etc.) would be differentiated by project characteristic (land use type, size, geographic location, demographics)

In this scenario, the CEQA threshold would compare project VMT to the VMT generated by a typical project of similar type (based on land use type, geography, and/or other characteristic). It would allow the jurisdiction to compare the attributes of a project to those of a typical project similar in nature to the proposed project, and would allow jurisdictions to craft the thresholds in a way that would allow projects to be compared against a "benchmark" project. Projects that generate VMT above that of the benchmark would be required to mitigate their impact through changes in the project, or perhaps pay a mitigation fee to offset their impact (similar to Case 1 above). This scenario may not adequately measure cumulative effects.

In either case, using simple calculations of a project's VMT using broad estimates and simple models may send a misleading message about a project's environmental effects, as they could be too simple to capture how nuanced changes in the project or its location might increase or decrease environmental impacts. On the other hand, more complex models would require jurisdictions to collect new data about its transportation system and develop new analysis tools in order to implement a VMT-based system, which could result in increased cost and complexity in evaluating projects. OPR should consider the following factors before proposing a VMT-based measurement of traffic impacts under CEQA:

- Availability of reliable trip length estimates of different land uses in different areas
- Applicability of national or regional trip generation, trip length, and modeling data to specific projects in particular locations
- Likelihood that California jurisdictions (particularly small cities and counties) have the resources to develop travel demand models or other tools necessary to calculate reasonably accurate VMT estimates for their jurisdiction
- Effort needed by jurisdictions to quickly develop new transportation planning and fee programs to translate VMT impacts identified through project-level CEQA review into physical transportation improvements needed to offset project VMT
- Use of "location" as a means of mitigating VMT impacts (discussed in the OPR document). Local jurisdictions have no ability to change a project location to reduce VMT. VMT reduction based on relation to a diversity of nearby uses (e.g. location) is very limited in the context of local agencies' ability to evaluate projects.

Implementing a VMT-based system to evaluate transportation impacts will require time and money that may not be available to many jurisdictions in the state, especially smaller cities and counties that have limited resources available to devote to CEQA review of projects. It also may add costs to project applicants if jurisdictions pass on time or monetary costs of implementing this new measurement standard on to property owners and developers seeking entitlements. Because of this, OPR should consider if the SB 743 legislation can accommodate a phased implementation of new VMT guidelines, or if OPR can designate an interim period where jurisdictions can transition from traditional LOS-based measurements to new VMT-based measurements. OPR should also identify resources to help jurisdictions develop new programs required to implement a VMT-based measurement standard. Finally, OPR should identify academic or professional research needed to refine any modeling or data required to implement VMT-based CEQA measurements.

Project CEQA Analysis vs. Transportation Planning

Implementing VMT-based CEQA transportation measures changes the way transportation systems are planned and built from one that is ad-hoc to one that better separates long-range transportation planning from project review under CEQA. This will be a beneficial outcome of adopting VMT-based

CEQA thresholds in the long run, as it eliminates the current situation where individual projects cause specific transportation improvements to be constructed, but do not necessarily accommodate system-wide transportation planning. Currently, some jurisdictions have implemented fee programs or other systems to address this issue, but many use the project-level CEQA process and policy documents (like general and specific plans) to plan transportation systems. Adopting VMT standards effectively forces all jurisdictions to separate their long-range transportation planning from CEQA analysis, because project CEQA documents are no longer able to identify and build specific transportation system improvements to offset impacts. Other than recommending changes to a project's physical characteristics, VMT-based thresholds can't be used to recommend specific system improvements that can be implemented directly by the project applicant. Thus, jurisdictions responsible for both project-level environmental review as well as long-range transportation planning will have to quickly develop separate, long-range transportation plans if they have not already done so. They may also have to implement funding programs that assess fees or fair-share arrangements to assign partial responsibility to development projects that are required to rely on the improvements identified in the long range plans to mitigate the VMT generated by the projects. It should be noted that a side benefit of VMT-based measures is that system-wide transportation improvements do not have to be predominately roadway-based; transit, bicycle, and pedestrian improvements, as well as TDM and other programs, all reduce VMT and can be used as project mitigation.

CEQA Analysis of Transportation Projects

Adopting a VMT-based CEQA measure has several consequences related to how transportation projects themselves are evaluated. VMT-based measures describe more clearly the tradeoffs between different travel modes by relating them to VMT rather than vehicle congestion. VMT measures can compare the relative effects transportation improvements have on the environment across different travel modes. Under current LOS measures, the effects of transportation projects (regardless of mode) are all compared to their effect on the travel characteristics of motor vehicles (one travel mode). This distorts the way the environmental effects of transportation projects are portrayed to the public. For instance, implementing a dedicated bus lane and increasing transit service in that lane could have tremendous environmental benefits in lowering VMT in a region and consequently reducing greenhouse gas emissions and improving air quality. But, under current LOS frameworks, the public will primarily be presented with only the effects on automobile congestion. Under a VMT-based measure, different transportation improvements would be evaluated against a separate, common metric applied to all modes.

Thoughts on OPR Open Questions and Next Steps

OPR's preliminary evaluation document posed a number of open questions and invited response on these questions. Below are some responses.

OPR asked if additional environmental impacts related to transportation could be identified, and how any additional impacts could be analyzed in other sections of an environmental analysis. Increases in automobile capacity can have additional environmental effects beyond those traditionally studied. These include physical effects on adjoining land uses like dividing existing neighborhoods, restricting free access (by all travel modes) to destinations from nearby land uses, and causing aesthetic impacts (reduced landscaping, tree removal, visual blight of columns of moving vehicles, light and glare, etc.). OPR should review how evaluation of transportation impacts ties into these other related areas of environmental analysis. Some existing measures of these areas currently exist in CEQA practice.

OPR asked if consistency with roadway design guidelines would normally indicate less than significant safety impact. This assumption is heavily predicated on which design guidelines are used to compare from. Typical roadway-based guidelines that implicitly encourage high speeds by dictating wide lanes, clear sight lines, setbacks from adjoining land uses, restricted access control along arterials, and parking removal could be shown to improve motorist safety but do not address safety of other travel modes. Complete streets guidelines (not adopted by many jurisdictions) could incorporate the safety of other modes but more analysis should be conducted to determine if there is a positive correlation to safety and complete streets / open streets design standards.

OPR asked for input on the best available models to measure transportation impacts if new metrics (like VMT) are adopted. Unfortunately, even the state-of-the practice tools used to measure and forecast transportation elements like trip generation, trip distribution, trip length, mode split, and other factors are imprecise at the project level or trip level. To achieve accuracy and reliability, these tools require significant data inputs and rely on broad assumptions (many of which are unknown) to make precise estimates. Further, attempts to improve reliability and precision will likely require jurisdictions to invest heavily in resources to develop or improve these models. OPR should look to existing travel demand models of MPOs and RTPAs, and standards already developed by planning agencies as a starting point, with the understanding that these models may need to be modified heavily to implement VMT measurement and analysis for the project level that makes their estimates reliable. OPR should focus on the inherent split between project-level CEQA analysis (where precise modeling at this level is likely to be inaccurate) and the requirement to undergo jurisdiction-wide transportation planning (where less modeling precision may be required to plan for these larger systems). However, the availability of accurate, reliable, and "believable" modeling tools will likely continue to be limited. OPR may wish to recommend support for academic and professional efforts to improve the research and practice of transportation modeling and measurement.

OPR asked how parking should be treated in environmental analysis. Parking should be treated as any other transportation facility and -- like the evaluation of roadway improvements, transit systems, and non-motorized projects -- can be measured in relation to the VMT these facilities contribute to the transportation network. As part of a development project, parking facilities will influence trip generation, trip length, and the ability that diversity of nearby uses has on reducing VMT. As a standalone facility, parking can be evaluated just like any other vehicle capacity improvement; trip generation and VMT can be estimated, and environmental impacts can be identified.

Public Acceptance of VMT-based Measures

OPR should consider the public's acceptance of VMT-based measures in mitigating transportation impacts. The current LOS-based system has many flaws, but one advantage is that it is easy to physically and geographically tie the location of a project's traffic impacts and identified mitigations, and then require the project to directly implement the improvements. The public can easily follow this cause-and-effect, action-and-consequence sequence if they are interested in learning about the effects of a new development project. This may be lost with the change to a VMT-based measurement system because VMT is harder to geographically identify, and because it is difficult to assign specific transportation mitigations directly to a project. VMT-based measures rely on a relative comparison of a project to a broader threshold or baseline, and mitigations that don't rely on changes to project characteristics will likely require more abstract actions, such as paying a fee or share towards a long-term set of planned improvements that may not occur in concert with project construction. It may be

difficult for decision makers and the public to understand and accept a less-direct correlation between impacts and mitigations.

Conclusion

SB 743 presents a tremendous opportunity to re-fashion the way jurisdictions evaluate the transportation impacts of new development projects, and provides an opportunity to coordinate long range transportation planning with project-level environmental review, all within the context of furthering the state's goal of reducing greenhouse gas emissions and promoting cleaner transportation systems. However, there are significant challenges that remain in developing a system that meets the goals outlined in OPR's preliminary alternatives analysis document. It is hoped that the issues described above are useful to OPR and jurisdictions responsible for implementing SB 743 and developing better tools to evaluate transportation impacts under CEQA.

Sincerely,

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